A simple, inexpensive chainsaw mill that handles both small and big jobs.

LOGOSOL SWEDISH MILL M5

Story and Photos by Dirk Vinlove

When asked to review a chainsaw mill, my thoughts immediately went to building 10 x 10 mushing cabins with my buddies in the hills of Alaska. We used a chainsaw with a 10-inch bar to make the crude posts and beams for these wilderness cabins. In other words, I hardly thought a chainsaw capable of making finished lumber, let alone log cabin mansions. I couldn't have been more wrong.

On a sunny morning in the Colorado mountains, I met Phil Gould in the Beaver Creek ski area parking lot just west of Vail to get a look at the Logosol Swedish Mill M5 in real working conditions. After winding six miles up a twisty paved road in his Ford F250, the "cabins" Phil works on began to appear. Phil's business, Log Home Interiors, finishes $10 million log palaces for owners who use them as second homes for Colorado ski trips. Good work if you can get it.

Phil brings high-end log home building back down a few notches. Instead of machine-planed, sanded, and varnished interiors, Phil uses hand-planed finishes to make the interiors of these mansions "more rustic."

As Phil said, "I just don't think a sander has a real place in log home building."

Phil Gould prepares to saw a log on his Logosol Swedish Mill, which he uses to finish the interiors of Colorado ski houses.

Phil found the Logosol mill in a tiny advertisement, and thought, "I need this tool." He looked up the Logosol web site and called the factory to order his frame. One of the things Phil likes best about his mill is its working height. Once a face is slabbed off, Phil uses his hand plane to finish the surface right on the mill before turning the log.

"I didn't want the log sitting on the ground getting dirty, and I didn't want to spend my day bending over or kneeling to plane. I can get right up to the log on this mill," he said.

Without a traditional carriage frame, the Logosol allows access to one entire side of a log. The sawhead, which is a Stihl 066 chainsaw surrounded by an aluminum brace, is supported on just one side, where it rides along the aluminum rail.

This concerned Phil initially. With the chainsaw body clamped in, Phil was worried the far end of the bar might have a tendency to "dance" a bit in heavier cuts. That has not proved to be the case, but Phil keeps after his chain and isn't looking for high-feed rates.

Phil began his sawing with the Logosol using 50-gauge low-profile Stihl chains that the manufacturer suggested, but found that they cut too slow for his liking. Because kerf is only a minor concern, Phil switched to the round chisel, and is now having a buddy grind out 60-gauge full square chisel chains for him. The greater speed through the log is more important than the sawdust left behind by the bigger bite, and the somewhat rougher surface is not a problem either. Phil finishes his cuts by hand-planing his logs right on the mill. It's important to remember Phil is going for one- and two-sided logs or thick slabs, instead of 2x lumber when he cuts. So, his production methods may seem slow compared to sawyers going for lumber production.

Phil touches the teeth up with a hand file after "10 or 15 rips through the log."

"It's a waste of time when the chain is dull," Phil said. "But I suppose it's like any kind of chainsaw cutting. Dull chains just don't work."

The Stihl Picco low-profile chains do leave a nice finish on the boards with the Logosol, Phil said. He has seen lumber come off band mills and believes the Picco chain finish is comparable.

Phil was looking for accuracy in his sawmill purchase. But it is important to remember he works with logs, not boards, so accuracy for him means down to 1/8 or 1/16 of an inch.

On a stack of four-edge 4/4 lumber Phil ripped out two days earlier, I didn't notice any more than a 1/16-inch variation in thickness. The lumber had been sitting out in the sun without stickers or any kind of cover, and the one

LOGOSOL M5 SPEC SHEET

NAME & MODEL
Logosol Swedish Mill M5

MANUFACTURER & ADDRESS
Logosol
P.O. Box 660
Madison, MS 39130
601-856-1889
601-856-9535 (fax)
877-LOGOSOL
www.logosol.com

MILL OVERVIEW
Band or Circle: *Chain saw*

Stationary or Portable: *Portable*

Cutting Capacity: *30 inch in diameter by 15 feet in length*

Weight: *125 pounds*

Length & Width of Mill: *16 feet, 4 inches long, 6 feet wide*

FRAME & CARRIAGE
Size and Construction of Frame: *Anodised aluminum*

Tracks are Made of: *Extruded anodised aluminum*

Are the Tracks Replaceable? *Yes*

Carriage Support System: *Sled*

SAWING HEAD
Recommended Saw Blade: Stihl low profile (Picco) ripping chain 1/4" kerf, 16" & 25" bars

SETWORKS
Method of Setworks *1/4 inch scale plates*

ALIGNMENT
How is Alignment Done at Factory?: *Owner is responsible for tuneup*

POWER PLANT
Standard: *066 Stihl chainsaw*

LOG TURNER
Manual

LOG LOADER
Manual

LOG DOGS
Manual, with two aluminum support brackets

CARRIAGE FEED DRIVE
Type: *Manual*

TOWING
N/A

GUARANTEE
Two-year full guarantee on sawmill and chainsaw except for wear parts

OPTIONS AVAILABLE
Log cabin kit, extension bar from 1 1/2 to 8 feet, extra pulley and hardened steel log shelf

PRICE
Contact manufacturer

The Logosol has two scale plates, adjustable by quarter inches.

Phil Gould measures the center of a log. By adjusting the two scale plates, he can saw tapered logs.

wavy stick had a good number of knots in it.

To cut 4/4 lumber with the Logosol, the sawyer stops at the end of one cut, idles the saw, and walks the head back to the starting position. Then the sawyer cranks up one end of the log, removes the stop pin, and replaces it in the scale board at the desired height, then lowers the log onto that pin. The process is then repeated at the other end of the log. Consequently, the Logosol isn't built for high-production sawing.

The Logosol carriage feed is a simple string attached to the saw carriage and hooked to the end of the mill. The sawyer uses a small hand crank to move the saw through the log. The Stihl chainsaw Phil uses has no throttle lock, making the mill a two-handed operation. Phil doesn't mind because he feels it makes for safe sawing and because controlling both the throttle and the hand crank allows him to feel how the saw is cutting.

Though this drive system looked out of scale, Phil said it has worked fine, even when cutting large logs. The Logosol mill didn't have any trouble running through the 10-inch spruce we were working on that day.

The Logosol setworks consists of two aluminum scale plates, drilled in quarter inch increments. To make this simple peg more adjustable would weaken the plates. Phil didn't find this somewhat crude adjustment a problem. When he needs an additional 1/8 inch out of his cut, he places a thin washer between the peg and stop it rests on. This winter, Phil plans to make a bushing system that attaches near the pegs, allowing him to slide different thickness bushings onto the pegs for quick fine adjustments. This is something that might make sense for a fine woodworker, but for someone sawing dimension lumber, a scale adjustable by quarters works fine.

Another feature Phil likes a lot is the easily adjustable taper system on the Logosol frame. In log home building, all the measuring is done off centers. Once the center of the log is marked, it is a matter of raising or lowering each end an appropriate distance from that center. Then depending on the sweep of the log, it can be dogged into the frame in much the same fashion. In simple terms, each end of the log can be infinitely tapered by hand to allow for an opening face based on the center of the log.

It is easy to see how this sort of system works great for Phil, but might not be the best for someone bent on blowing through the most board feet possible in a day.

As far as setup, you couldn't get much easier than the Logosol. The 125-pound aluminum frame makes for easy transport, and stays in one piece. "I just toss it on the rack on top of my truck," Phil said.

All that is needed to begin sawing is to bolt the chainsaw into a small frame. That frame is then placed on the monorail, and you are ready to saw. Phil keeps his 066 bolted into its frame making for easy setup onto the mill.

Phil has owned his Swedish Logosol M5 for three months. He had a Stihl 066 on hand, so he just needed to put down $2,200 for the aluminum frame. With the mill, he spends a half day doing the work it took two men two days to do. Add in the increased accuracy of the mill compared to snapping a line down a log balanced on the ground and free cutting through, and it's the best $2,200 Phil has spent on a tool, he said.

"The cost of labor is so high around here that the time savings alone paid for this mill really quickly," he said.

But there is more to the equation. Phil's business is to fill in log frames, work that is often not done to exact measurements. So when an odd size interior window sill is needed, Phil loads a log or a partial log on the Logosol and cuts it on the work site. Before, he had to order a custom cut at a sawmill.

"I used to have a lot of my stuff milled by a big circle mill in Dotasaro, (a nearby mountain town) but that meant at least two days turnaround, and costs for transport," Phil said. "It's faster and cheaper to just do it on site."

The current cabin Phil is working on is one of the smaller ones, totaling 1,800 square feet...not including a four-car garage. "It seems every house I work on gets bigger and more expensive."

The logs come from Montana, and are all beetle-kill spruce, ranging in size from 10 to 36 inches in diameter. The large, heavy logs do have an advantage for Phil; he loads the Logosol with a free-standing crane instead of with ramps or a loader, which is how the mill is typically loaded.

Phil likes working with beetle kill because of its dryness and unique character. When opening a log, Phil works nearly opposite of most sawyers. He chooses his opening face based on interesting knot patterns, minor splits, and other defects to give the wood "character." He had no idea that sawyers would consider the blue stain in some of his logs a defect.

Left to right: Phil Gould takes a slab cut off a log with his Logosol. He shows off a board in the center photo. Above right: With no throttle lock on his chainsaw, Phil Gould uses two hands to run his mill.

"I think it looks a lot better, and none of my customers have ever complained," he said.

Phil did have a couple of minor concerns with the mill. First, the spring-loaded log supports that raise and lower each end of the log in relation to the saw did go down easily, unless there was a fairly heavy log on top of them. It wasn't a big deal to Phil, who mainly works with heavy logs, and may have been the case of newer bushings needing time to loosen up a bit. This again showed the machine as a custom sawyer's mill, not really designed for high-production work. However, the cranks that adjusted the log upward did work very smoothly.

The only other complaint was that the dog that holds the far end of the log was too low for Phil's liking, and he in fact did roll one log off the mill. Logosol does sell an extension bar for the dog, which Phil has ordered and plans to use.

Phil also totes along a Stihl 026 for any branch or knot work that might be needed on a log. Even at Beaver Creek's 9,400-foot elevation, the 066 kicked out plenty of power for Phil. He has tried a couple other similar size saws from different manufacturers, but found the thin air hampered their performance. Phil is considering buying a Stihl 088, but isn't sure if the extra money is worth the one and half horses he would get. Plus, the 066 is working fine.

Phil was running a 12-inch bar the day I was working with him, but has used as big as a 24-inch bar to work through a 22-inch, 15 1/2-foot log without any loss of accuracy.

"It just gets a little slow in that big of a cut," Phil said.

That is as big a log as Phil can handle on his frame. Logosol does sell extension kits for the support brackets that would allow for greater diameters. Any longer than that would take a custom addition to the mill to lengthen the mono-track that guides the saw. I wonder if the overall weight of that size log would make it tough to stay level the length of the log. But it isn't often a sawyer is going to go for more than a 12-footer, and the Logosol will take a 15-footer without any problem.

Phil asked me if I thought the Logosol was the right mill for him. I couldn't think of a better fit given the non-traditional way he uses his saw. For someone looking for a simple, inexpensive mill to pull lumber for a barn, outbuilding or fencing, the Logosol really shines.

If I was working a tally sheet and looking for high production, I'm not so sure, but the Swedes have designed a nice alternative to band and circle mills. ■

Dirk Vinlove is a former editor of this magazine. He currently lives in Fairbanks, Alaska, where he works as a freelance writer and runs a dogsled team to stay warm during the long winter. He can be contacted at dirkvinlove@hotmail.com.

MANUFACTURER'S STATEMENT

The Logosol Swedish Mill is an exciting breakthrough in chainsaw milling. For the first time, here is a fun sawmill, perfect for a first-time sawyer, yet also combining the engineering strength and precision demanded by professional owners.

The versatility of this sawmill is terrific. Whether you build cabinets, furniture, log cabins, or custom homes, or whether you want to mill a few logs or cut every day for profit, the Swedish Mill can produce high-quality lumber and custom boards economically. Compared to other mills, the maintenance and operation costs are minimal. The Swedish Mill is a quality investment at an affordable price.